## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-009947

Address: 333 Burma Road **Date Inspected:** 04-Nov-2009

City: Oakland, CA 94607

**OSM Arrival Time:** 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Xu Yumin and Wu Zhi Cheng **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** OBG

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

Trail Assembly Yard

1AW+1BW

SMAW repair welding on excavation on weld joint 008 located on OBW1A.

Welder is identified as Mr. Han Xiaofeng (054467). ZPMC QC is identified as Li Yang.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-FCM-Repair-1 and CWR repair procedure #875.

SMAW repair welding on excavation on weld joint 008 located on OBW1A.

Welder is identified as Mr. Dai Lu (048559). ZPMC QC is identified as Wu Li Yang.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-FCM-Repair-1 and CWR repair procedure #875.

SMAW repair welding on excavation on weld joint 008 located on OBW1A.

Welder is identified as Mr. Zhang Feng (049769). ZPMC QC is identified as Wu Li Yang.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-FCM-Repair-1 and

## WELDING INSPECTION REPORT

(Continued Page 2 of 3)

CWR repair procedure #875.

SMAW repair welding on excavation on weld joint 008 located on OBW1A.

Welder is identified as Mr. Zhang Quanfa (066326). ZPMC QC is identified as Wu Li Yang.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-FCM-Repair-1 and CWR repair procedure #875.

SMAW repair welding on excavation on weld joint 008 located on OBW1A.

Welder is identified as Mr. Feng Huajun (066258). ZPMC QC is identified as Wu Li Yang.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-FCM-Repair-1 and CWR repair procedure #875.

6AE

FCAW welding on t stiffeners to bottom plate weld joints 017, 018, 025 and 026 located at SP426A. Welder is identified as Mr. Peng Jiancheng (222396). ZPMC QC is identified as Xu Yumin. The welding variables recorded by QC appeared to comply with WPS-B-T-2132.

5CE

FCAW welding on t stiffeners to bottom plate weld joints 021, 022, 029 and 030 located at SP425. Welder is identified as Mr. Peng Jiancheng (222396). ZPMC QC is identified as Xu Yumin. The welding variables recorded by QC appeared to comply with WPS-B-T-2132.

FCAW welding on t stiffeners to bottom plate weld joints 029 and 030 located at SP564A. Welder is identified as Mr. Cao Fei (220077). ZPMC QC is identified as Xu Yumin. The welding variables recorded by QC appeared to comply with WPS-B-T-2132

FCAW welding on t stiffeners to bottom plate weld joints 038 and 040 located at SP564A. Welder is identified as Mr. Li Guimin (220069). ZPMC QC is identified as Xu Yumin. The welding variables recorded by QC appeared to comply with WPS-B-T-2132

6AE

During a random in process visual inspection, this Quality Assurance (QA) Inspector observed several Fracture Critical Weld (FCW) tack welds that do not appear to comply with the contract documents. The tack welds in question are joining one (1) of the FB Diaphragms to the SPCM area of the Side Panel and FB Diaphragm to bottom plate. The members are identified as FB20A to X27B weld joint and X104E to bottom plate between panel point 38 & 39. This QA Inspector issued an incident report on the above noted noncompliant issues.

#### 6AE

During random in process visual inspection, Caltrans Quality Assurance (QA) Inspector observed approved ZPMC welder continuing with the repair work (under fill) on various repair areas on deck plate weld joint OBE1-001. Upon completion of the observed repair work, this QA Inspector noted Post Weld Heat Treatment (PWHT) was

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)

not performed per CWR #868. This QA Inspector issued an incident report on the above noted noncompliant issue.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (134-8257-0045), who represents the Office of Structural Materials for your project.

Inspected By:	Alaniz,Joe	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer